16966-00002 PATENT

recording fingerprint data of the individual as registered fingerprint data in a memory unit of a flat information recording/processing device;

sensing a fingerprint of the individual on a fingerprint sensor of the flat information recording/processing device;

comparing the sensed fingerprint of the individual to the registered fingerprint data using a fingerprint matching unit of the flat information recording/processing device; and

outputting a result of the comparison to an exposed terminal of the recording/processing device, the exposed terminal configured to electrically connect to an external terminal.

Remarks

The Office Action mailed January 23, 2003, has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-3, 6, 7, 9, 10, 13-16, 18-20, 22-25 and 27-28 are now pending in this application. Claims 1-3, 6, 7, 9, 10, 13-20, 22-25 and 27-29 stand rejected. Claims 17 and 29 are canceled.

The rejection of Claims 9, 10, and 18 under 35 U.S.C. § 112, first paragraph, is respectfully traversed. Claims 9, 10, and 18 are herein amended to address the issues noted in the Office Action. Specifically, Claims 9, 10, and 18 have been amended to recite "an information recording/processing device" rather than a "read/write device". The information recording/processing device is described, at least in part, at page 6 with respect to Figure 1(a). Therefore, Applicant respectfully submits no new matter has been added.

For the reasons set forth above, Applicant respectfully requests that the Section 112 rejections of Claims 9, 10, and 18 be withdrawn.

16966-00002 PATENT

Express Mail Label No.: EV339988566US

The rejection of Claims 1-3, 13-16, and 27-28 under 35 U.S.C. § 102(e) as being anticipated by Lane (U.S. Patent No. 5,623,552) is respectfully traversed.

Lane describes an identification card 100 which includes a card body 101, a fingerprint sensor 102 and a memory 103 for storing information related to a fingerprint of the card user. The memory 103 is contained within the card body 101 and is electrically connected to the fingerprint sensor 102. An activator 104 is electrically connected to the fingerprint sensor 102 and the memory 103 for initiating fingerprint information storage upon activation thereof. A verification device 105 is electrically connected to the memory 103, for indicating that the information related to a fingerprint has been successfully stored in the memory 103. An authenticator 107 is electrically connected to the fingerprint sensor 102 and the memory 103 for comparing information related to a sensed fingerprint with the stored fingerprint information and for producing an authentication signal if the sensed fingerprint information matches the stored fingerprint information. A controller 106 controls operations of the card 100 as will be described below. See Lane, Column 5, lines 6-47. However, Lane does not describe any sort of exposed terminal configured for electrically connecting the card with an external terminal.

Claim 1 recites an information recording/processing device which includes "a thin fingerprint sensor," "a conversion unit configured to convert fingerprint data detected by the fingerprint sensor into digital electrical signals" and "an exposed terminal on a part of a surface of said device, said exposed terminal configured for electrically connecting with an external terminal."

Lane does not describe nor suggest an information recording device which includes an exposed terminal configured for connecting with an external terminal. Rather, Lane describes a card which compares data from a fingerprint sensor to pre-stored fingerprint data. If the data matches, an audio is supplied, or alternatively, data stored in the magnetic stripe can be updated. Applicant respectfully submits that the magnetic strip and authorization device of Lane does not result in a connection. However, for clarification, Applicant herein amends Claim 1 to recite that

the exposed terminal is configured to provide an **electrical** connection with the external terminal. Applicant further submits that a transfer of information from a magnetic source to a magnetic reader would not be considered by those skilled in the art to be an electrical connection. Neither the magnetic nor the audio (speaker) devices described in Lane provide an electrical connection between two terminals. For the reasons set forth above, Claim 1 is submitted to be patentable over Lane.

16966-00002

PATENT

Claims 13 and 15 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 13 and 15 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 13 and 15 likewise are patentable over Lane.

Claim 2 recites an information recording/processing device which includes "a thin fingerprint sensor," "a memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data," "a fingerprint matching unit configured to compare newly detected fingerprint data with the registered fingerprint data stored in the memory unit" and "an exposed terminal on a part of a surface of said device, said exposed terminal configured for electrically connecting with an external terminal."

Lane does not describe nor suggest an information recording device which includes an exposed terminal configured for connecting with an external terminal. Rather, Lane describes a card which compares data from a fingerprint sensor to pre-stored fingerprint data. If the data matches, an audio is supplied, or alternatively, data stored in the magnetic stripe can be updated. Applicant respectfully submits that the magnetic strip and authorization device of Lane does not result in a connection. However, for clarification, Applicant herein amends Claim 2 to recite that the exposed terminal is configured to provide an **electrical** connection with the external terminal. Applicant further submits that a transfer of information from a magnetic source to a magnetic reader would not be considered by those skilled in the art to be an electrical connection. Neither the magnetic nor the audio (speaker) devices described in Lane provide an electrical connection

16966-00002 PATENT

between two terminals. For the reasons set forth above, Claim 2 is submitted to be patentable over Lane.

Claims 14 and 16 depend, directly or indirectly, from independent Claim 2. When the recitations of Claims 14 and 16 are considered in combination with the recitations of Claim 2, Applicant submits that dependent Claims 14 and 16 likewise are patentable over Lane.

Claim 3 recites an information recording/processing device which includes "a thin fingerprint sensor," "a memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data," "an exposed terminal on a part of a surface of said device, said exposed terminal configured for electrically connecting with an external terminal" and "a fingerprint matching unit configured to compare newly detected fingerprint data with the registered fingerprint data stored in the memory and to output a signal indicative of when there is a match of the fingerprints in the comparison to said exposed terminal."

Lane does not describe nor suggest an information recording device which includes an exposed terminal configured for connecting with an external terminal. Rather, Lane describes a card which compares data from a fingerprint sensor to pre-stored fingerprint data. If the data matches, an audio is supplied, or alternatively, data stored in the magnetic stripe can be updated. Applicant respectfully submits that the magnetic strip and authorization device of Lane does not result in a connection. However, for clarification, Applicant herein amends Claim 3 to recite that the exposed terminal is configured to provide an electrical connection with the external terminal. Applicant further submits that a transfer of information from a magnetic source to a magnetic reader would not be considered by those skilled in the art to be an electrical connection. Neither the magnetic nor the audio (speaker) devices described in Lane provide an electrical connection between two terminals. In addition, a device which outputs a signal to a terminal indicative of when there is a match of the fingerprints also is not described. For the reasons set forth above, Claim 3 is submitted to be patentable over Lane.

16966-00002 PATENT

Express Mail Label No.: EV339988566US

Claim 27 recites a method for identifying an individual which includes "recording fingerprint data of the individual as registered fingerprint data in a memory unit of a flat information recording/processing device," "sensing a fingerprint of the individual on a fingerprint sensor of the flat information recording/processing device," "comparing the sensed fingerprint of the individual to the registered fingerprint data using a fingerprint matching unit of the flat information recording/processing device" and "outputting a result of the comparison to an exposed terminal of the recording/processing device, the exposed terminal configured to electrically connect to an external terminal."

Lane does not describe nor suggest a method which includes outputting a result of a comparison to a terminal configured for electrically connecting with an external terminal. Rather, Lane describes a card which compares data from a fingerprint sensor to pre-stored fingerprint data. If the data matches, an audio is supplied, or alternatively, data stored in the magnetic stripe can be updated. Applicant respectfully submits that the magnetic strip and authorization device of Lane does not result in a connection. However, for clarification, Applicant herein amends Claim 27 to recite a method that includes a step where the that the exposed terminal is configured to provide an **electrical** connection with the external terminal. Applicant further submits that a transfer of information from a magnetic source to a magnetic reader would not be considered by those skilled in the art to be an electrical connection. Neither the magnetic nor the audio (speaker) devices described in Lane provide an electrical connection between two terminals. For the reasons set forth above, Claim 27 is submitted to be patentable over Lane.

Claim 28 depends from independent Claim 27. When the recitations of Claim 28 are considered in combination with the recitations of Claim 27, Applicant submits that dependent Claim 28 likewise is patentable over Lane.

For the reasons set forth above, Applicant respectfully requests that the Section 102 rejection of Claims 1-3, 13-16, and 27-28 be withdrawn.

16966-00002 PATENT

The rejection of Claims 9-10 and 18-19 under 35 U.S.C. § 102(e) as being anticipated by Hsu et al. (U.S. Patent No. 6,041,410) is respectfully traversed.

Hsu et al. describe a small handheld device 14, or fob, which communicates with a receiver 15. The fob 14 includes a fingerprint sensor 16. When the user 12 places a finger over the sensor 16 and actuates a switch, the person's fingerprint is scanned and is compared with a reference fingerprint image stored in the fob 14, which includes a fingerprint correlator for this purpose. If the comparison results in a match, the fob 14 transmits a confirming message. Principal components of the fob 14, include the fingerprint sensor 16, a processor module 20, a transceiver 22 and a battery power supply 24.

Claim 9 recites a machine/system control device which includes "a fingerprint sensor," "a fingerprint matching unit configured to compare fingerprint data detected by the fingerprint sensor with pre-registered fingerprint data," "a control mechanism configured to control operation of the machine/system control device in accordance with user-specific information in accordance with a sensed fingerprint, when there is a match of fingerprint data with pre-registered fingerprint data" and "a slot for insertion of an information recording/processing device, said slot comprising an external terminal configured to mate with an exposed terminal of the information recording/processing device, said external terminal being where data is passed to said control device, the data being at least fingerprint data from a user of the information recording/processing device."

Applicant submits that the section 102 rejection of Claim 9 is not a proper rejection. For a proper section 102 rejection, each and every limitation of the pending claim must be shown (anticipated) by the cited reference. Hsu et al. do not describe nor suggest a machine/system control device which includes a slot for insertion of an information recording/processing device, the slot having an external terminal configured to mate with an exposed terminal of the information recording/processing device. Hsu et al. do not describe nor suggest any type of a device insertion slot. In addition, Hsu et al. do not describe nor suggest a control mechanism

Express Mail Label No.: EV339988566US 16966-00002
PATENT

configured to control operation of the machine/system control device in accordance with user-specific information in accordance with a sensed fingerprint. Further, Hsu et al. do not define the external terminal as being where data is passed to the control device, the data being at least fingerprint data from a user of the information recording/processing device. For the reasons set forth above, Claim 9 is submitted to be patentable over Hsu et al.

Claims 18 and 19 depend, directly or indirectly, from independent Claim 9. When the recitations of Claims 18 and 19 are considered in combination with the recitations of Claim 9, Applicant submits that dependent Claims 18 and 19 likewise are patentable over Hsu et al.

Claim 10 recites a machine/system control device which includes "a fingerprint sensor,"

"a first memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data," "a fingerprint matching unit configured to compare fingerprint data detected by the fingerprint sensor with registered fingerprint data stored in the memory unit," "a control mechanism configured to control operation of the machine/system control device in accordance with user-specific information corresponding to the fingerprint, when there is a match of fingerprint data with the registered fingerprint data" and "a slot for insertion of an information recording/processing device, said slot comprising an external terminal configured to mate with an exposed terminal of the information recording/processing device, said external terminal being where data is passed to said control device, the data being at least fingerprint data from a user of the information recording/processing device."

Applicant submits that the section 102 rejection of Claim 10 is not a proper rejection. For a proper section 102 rejection, each and every limitation of the pending claim must be shown (anticipated) by the cited reference. Hsu et al. do not describe nor suggest a machine/system control device which includes a slot for insertion of an information recording/processing device, the slot having an external terminal configured to mate with an exposed terminal of the information recording/processing device. Hsu et al. do not describe nor suggest any type of a device insertion slot. In addition, Hsu et al. do not describe nor suggest a control mechanism

16966-00002 PATENT

configured to control operation of the machine/system control device in accordance with user-specific information in accordance with a sensed fingerprint. Further, Hsu et al. do not define the external terminal as being where data is passed to the control device, the data being at least fingerprint data from a user of an information recording/processing device. For the reasons set forth above, Claim 10 is submitted to be patentable over Hsu et al.

For the reasons set forth above, Applicant respectfully requests that the Section 102 rejection of Claims 9-10 and 18-19 be withdrawn.

The rejection of Claims 29-30 under 35 U.S.C. § 102(e) as being anticipated by Borza (U.S. Patent No. 5,867,802) is respectfully traversed.

Claims 29 has been cancelled. Claim 30 was cancelled in a previous Amendment.

For the reasons set forth above, Applicant respectfully requests that the Section 102 rejection of Claims 29-30 be withdrawn.

The rejection of Claims 6, 7 and 17 under 35 U.S.C. § 103 as being unpatentable over Price-Francis (U.S. Patent No. 5,815,252) in view of Itsumi et al. (U.S. Patent No. 5,559,504) is respectfully traversed.

Price-Francis describes a fingerprint identification system 20 where the fingerprints of the card owner 23 are stored on the encoded portion of an optical card 25, as part of individual identification information. The fingerprint data, for example, is scanned using a scanner 35 connected to a computer 37, which is also connected to a card reader/writer 45, which is configured to store the biometric data on the card 25. Card 25 can also contain other various biometric and representative information about the individual card owner 23, recorded physically on the face of the card, or recorded in a memory 30. Preferably, only certain characteristics of a plurality of fingerprints are stored on the card 25, thereby conserving memory space. Card 25 does not include a fingerprint sensor. Rather, card 25 only stores data relating to fingerprints.

16966-00002 PATENT

Therefore, Price-Francis does not describe or suggest an information recording unit which includes a fingerprint sensor.

Itsumi et al. describe an IC card (63) with an identification device (73). Input keys (64) and a display (62) are mounted on IC card (63). A surface shape sensor consisting of an array of electrodes (61) is at an end portion of IC card (63). The IC card (63) further includes a CPU (77), an information recording memory (75), and an external terminal (76), for connecting to an external terminal, for inputting and outputting information from and to the external terminal. Identification device (73) includes a fingerprint input unit (70), a projection calculation unit (71), a signal processing unit (72), and a fingerprint data registration memory (74) for registering fingerprint data. A signal obtained from the fingerprint input unit (70) is processed through the projection calculation unit (71) and the signal processing unit (72) and input to the CPU (77). CPU (77) compares input fingerprint data with the fingerprint data of the individual registered in the fingerprint data registration memory (74) in advance, thereby determining whether or not the person who currently inputs the fingerprint data is the registered holder. If it is determined that this person is the registered holder, external terminal (76) is set in the operable state, so that the user can access, e.g., the external terminal of a banking system or the like through the external terminal (76). Column 14, line 60 to Column 15, line 36.

There is no apparent suggestion from the Price-Francis and Itsumi et al. references themselves that it would be desirable to modify either of the fingerprint sensing systems in the manner recited in Claim 6. Therefore, the rejection appears to be an impermissible hindsight reconstruction of the invention using Applicants' specification as a template and combining isolated pieces of art in an attempt to deprecate the instant claims. There is no evidence in the current record, except a mere statement otherwise in the Office Action, that it would have been obvious to use the IC card as described by Itsumi et al. in the device described by Price-Francis. Applicant respectfully submits that the § 103(a) rejection of Claims 6 and 7, at least to the extent that it relies on Price-Francis in view of Itsumi et al., is improper and should be withdrawn.

16966-00002 PATENT

Express Mail Label No.: EV339988566US

Notwithstanding the propriety of the rejections, Claim 6 recites an information recording/processing system which includes a portable information recording unit and an information processing unit. The portable information recording unit includes "a thin fingerprint sensor, a first memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data, a second memory unit in which user-specific information is kept, and an exposed terminal configured for connecting with an information processing unit." The information processing unit includes "an external terminal configured to interface with said external terminal of said portable information recording unit, a fingerprint matching unit configured to compare newly detected fingerprint data, received at said external terminal, with the registered fingerprint data stored in the first memory unit, received at said terminal, and a display unit configured to display the user-specific information stored in said second memory unit, said information processing unit configured to display the user-specific information in the display unit when there is a match of fingerprints, said information processing unit further comprising a second thin fingerprint sensor and a third memory unit configured to store fingerprint data detected by said second fingerprint sensor as registered fingerprint data."

Price-Francis in view of Itsumi et al. do not describe nor suggest the information recording/processing system which includes a portable information recording unit and an information processing unit where the portable information recording unit includes a fingerprint sensor and an exposed terminal configured for connecting with an information processing unit. In addition, Price-Francis in view of Itsumi et al. do not describe nor suggest an information processing unit including a second thin fingerprint sensor and a third memory unit configured to store fingerprint data detected by the second fingerprint sensor as registered fingerprint data...

For the reasons set forth above, Claim 6 is submitted to be patentable over Price-Francis in view of Itsumi et al.

16966-00002 PATENT

Claim 7 depends from independent Claim 6. When the recitations of Claim 7 are considered in combination with the recitations of Claim 6, Applicant submits that dependent Claim 7 likewise is patentable over Price-Francis in view of Itsumi et al.

Claim 17 is cancelled.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 6, 7, and 17 be withdrawn.

The rejection of Claims 20 and 22-24 under 35 U.S.C. § 103 as being unpatentable over Price-Francis is respectfully traversed.

Price-Francis is described above. Independent Claim 20 recites a method for accessing a database of an information recording/processing device with a control device. The method includes "registering fingerprint data of a first person in a memory of the control device," "pressing a finger of the first person on a fingerprint sensor module of the control device to offer a fingerprint," "conditioning access to the database on a match of the offered fingerprint to fingerprint data in the memory of the control device," "connecting the information recording/processing device to the control device," "reading identification data from a memory of the information recording/processing device carried by a second person using the control device, the data read including fingerprint data," "pressing a finger of the second person on a fingerprint sensor module of the information recording/processing device to obtain a fingerprint" and "comparing the obtained fingerprint of the second person to the fingerprint data read from the information recording/processing device."

Price-Francis does not describe, nor suggest a method which includes conditioning access to a database on a match of the offered fingerprint to fingerprint data in the memory of a control device for a first person and reading identification data from a memory of an information recording/processing device carried by a second person using the control device. Using the fingerprint of a second person to access a data base of information regarding a first person is also

16966-00002 PATENT

not described nor suggested by Price-Francis. For the reasons set forth above, Claim 20 is submitted to be patentable over Price-Francis.

Claims 22-24 depend from independent Claim 20. When the recitations of Claim 22-24 are considered in combination with the recitations of Claim 20, Applicant submits that dependent Claims 22-24 likewise are patentable over Price-Francis.

For the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 20 and 22-24 be withdrawn.

The rejection of Claim 25 under 35 U.S.C. § 103 as being unpatentable over Scott et al. (U.S. Patent No. 6,111,977) in view of Borza (U.S. Patent No. 5,867,802) is respectfully traversed.

Scott et al. describe a fingerprint recognition transmitter 10 having a housing 12 with an upper surface 16, sidewalls 18, and a lower surface. The upper surface 16 includes a fingerprint recognition area 20. Placing a finger over a cover 22 of fingerprint recognition area 20 allows fingerprint images to be read. The upper housing 12 includes an alpha-numeric keypad having depressible switches 24 for use in combination with the fingerprint recognition allowing for manipulation of data. The front wall of the housing includes an IR (or RF) transmitter and receiver 26

Switches 24 may be configured to send a password code to accompany a fingerprint image for purposes of accessing additional security locations. For instance, the keypad may initiate functions that are secured and transfer empowerment to a) initiate the transfer once the fingerprint has been stored and the device is pointed at a receiver; b) to instruct the receiver to perform certain functions such as i) key 1 transmits the print and opens all doors on a car; ii) key 2 may transmit the print and open only the drivers door on a car; iii) key 3 may start the engine; iv) key 6 may allow the print immediately following the owners print (valet) to lock and start the

Express Mail Label No.: EV339988566US 16966-00002 PATENT

car over the following 24 hours; and v) key 9 may allow the print immediately following the owner print (valet) to become the new owner.

Borza describes a processor based system 8 which is modified to prevent unauthorized usage of one or more devices 18 (i.e. ignition, fuel delivery system, ABS braking, radio) related to the operation of a vehicle. The system includes biometric data input means in the form of a fingerprint scanning device 10, electronic-processing circuitry 12, a microprocessor 14 and memory 16. A logical memory block of memory 16 contains instructions that relate to the control and operation of the one or more devices 18. Column 3, lines 9-30. In operation, a fingerprint is fetched, and compared to a template. If the fetched finger print and template match, instructions that control the one or more devices 18 can be executed. Column 3, line 65 to Column 4, line 28. When system 8 includes writable memory, temporary users can be added and removed from the system, including automatic removal at a particular time. Also access to particular functions can be limited by permanent users. For example, instructions can be selected that limit the fuel flow rate to a predetermined maximum, thus essentially preventing the vehicle from exceeding a maximum speed, or that prevent temporary users from utilizing the radio or other features and options. Column 5, lines 12-20.

There is no apparent suggestion from the Borza and Scott et al. references themselves that it would be desirable to modify either of the fingerprint sensing systems in the manner recited in Claim 25.

The rejection appears to be an impermissible hindsight reconstruction of the invention using Applicants' specification as a template and combining isolated pieces of art in an attempt to deprecate the instant claims. There is no evidence in the current record, except a mere statement otherwise in the Office Action, that it would have been obvious to use the handheld finger print sensor and transmitting device as described by Scott et al. in the automobile control device described by Borza. Applicant respectfully submits that the § 103(a) rejection of Claim

16966-00002 PATENT

25, at least to the extent that it relies on Scott et al. in view of Borza, is improper and should be withdrawn.

Notwithstanding the propriety of the rejections, Claim 25 recites a method for controlling access to a vehicle which includes "placing a finger on a fingerprint sensor module of a remote control module," "transmitting minutiae data of the fingerprint to a receiver mounted in the vehicle," "comparing the minutiae data to data stored in a database of registered drivers," "conditioning opening of a door of the vehicle upon a match of the minutiae data to data stored in the database of registered drivers" and "limiting a speed of the vehicle in accordance with data stored in the database for a matched registered driver."

Scott et al. in view of Borza do not describe nor suggest a method for controlling access to a vehicle which includes limiting a speed of the vehicle in accordance with data stored in the database for a matched registered driver. Rather, Scott et al. in view of Borza only describe a remote fingerprint sensor and transmitter function which operates using fingerprint data to control locks for automobile doors. For the reasons set forth above, Claim 25 is submitted to be patentable over Scott et al. Therefore, Applicant respectfully requests that the Section 103 rejection of Claim 25 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

Robert E. Stenker

Registration No. 45,112

ARMSTRONG TEASDALE LLP

One Metropolitan Square, Suite 2600

St. Louis, Missouri 63102-2740

(314) 621-5070

16966-00002 PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Tamori

Art Unit: 2635

Serial No.: 09/424,685

Examiner: C. Yang

Filed: January 11, 2000

:

For: INFORMATION

RECORDER/PROCESSOR AND

EQUIPMENT/SYSTEM
CONTROLLER BOTH
PROVIDED WITH

FINGERPRINT SENSOR

SUBMISSION OF MARKED UP CLAIMS

Hon. Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

In furtherance of the amendment in response to the Office Action dated January 23, 2003, submitted separately herewith, Applicant hereby submits marked up claims, in accordance with 37 C.F.R. §1.121, for the amendments therein where deletions are [bracketed] and additions are underlined.

IN THE CLAIMS

Please cancel Claims 17 and 29.

1. (Three Times Amended) A flat information recording/processing device comprising:

a thin fingerprint sensor;

a conversion unit configured to convert fingerprint data detected by the fingerprint sensor into digital electrical signals; and

16966-00002 PATENT

an exposed terminal on a part of a surface of said device, said exposed terminal configured for <u>electrically</u> connecting with an external terminal.

2. (Three Times Amended) A flat information recording/processing device comprising: a thin fingerprint sensor;

a memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data;

a fingerprint matching unit configured to compare newly detected fingerprint data with the registered fingerprint data stored in the memory unit; and

an exposed terminal on a part of a surface of said device, said exposed terminal configured for <u>electrically</u> connecting with an external terminal.

3. (Three Times Amended) A flat information recording/processing device comprising: a thin fingerprint sensor;

a memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data;

an exposed terminal on a part of a surface of said device, said exposed terminal configured for <u>electrically</u> connecting with an external terminal; and

a fingerprint matching unit configured to compare newly detected fingerprint data with the registered fingerprint data stored in the memory and to output a signal indicative of when there is a match of the fingerprints in the comparison to said exposed terminal.

6. (Three Times Amended) An information recording/processing system comprising:

16966-00002 PATENT

a portable information recording unit comprising a thin fingerprint sensor, a first memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data, a second memory unit in which user-specific information is kept, and an exposed terminal configured for connecting with an information processing unit; and

an information processing unit comprising an external terminal configured to interface with said exposed terminal of said portable information recording unit, a fingerprint matching unit configured to compare newly detected fingerprint data, received at said terminal, with the registered fingerprint data stored in the first memory unit, received at said external terminal, and a display unit configured to display the user-specific information stored in said second memory unit, said information processing unit configured to display the user-specific information in the display unit when there is a match of fingerprints, said information processing unit further comprising a second thin fingerprint sensor and a third memory unit configured to store fingerprint data detected by said second fingerprint sensor as registered fingerprint data.

- 9. (Three Times Amended) A machine/system control device comprising:
- a fingerprint sensor;
- a fingerprint matching unit configured to compare fingerprint data detected by the fingerprint sensor with pre-registered fingerprint data;

a control mechanism configured to control operation of the machine/system control device in accordance with user-specific information in accordance with a sensed fingerprint, when there is a match of fingerprint data with pre-registered fingerprint data; and

a slot for insertion of [a read/write]an information recording/processing device, said slot comprising an external terminal configured to mate with an exposed terminal of the [read/write]information recording/processing device, said external terminal being where data is passed to said control device, the data being at least fingerprint data from a user of the [read/write]information recording/processing device.

16966-00002 PATENT

10. (Three Times Amended) A machine/system control device comprising:

a fingerprint sensor;

a first memory unit configured to store fingerprint data detected by the fingerprint sensor as registered fingerprint data;

a fingerprint matching unit configured to compare fingerprint data detected by the fingerprint sensor with registered fingerprint data stored in the memory unit;

a control mechanism configured to control operation of the machine/system control device in accordance with user-specific information corresponding to the fingerprint, when there is a match of fingerprint data with the registered fingerprint data; and

a slot for insertion of [a read/write]an information recording/processing, said slot comprising an external terminal configured to mate with an exposed terminal of the [read/write]information recording/processing device, said external terminal being where data is passed to said control device, the data being at least fingerprint data from a user of the [read/write]information recording/processing device.

- 18. (Twice Amended) A machine/system control device in accordance with claim 9 in which the user-specific information is fingerprint data from a person who has authority to inspect or rewrite information in the [read/write]information recording/processing device.
- 22. (Once Amended) A method in accordance with claim [21]20 and further comprising the step of displaying a verification when the obtained fingerprint of the person matches the fingerprint data read from the information recording/processing device.
- 24. (Once Amended) A method in accordance with claim [21]20 and further comprising the step of updating information stored in the memory of the information recording/processing device.

Express Mail Label No.: EV339988566US 16966-00002 PATENT

27. (Twice Amended) A method for identifying an individual comprising the steps of:

recording fingerprint data of the individual as registered fingerprint data in a memory unit of a flat information recording/processing device;

sensing a fingerprint of the individual on a fingerprint sensor of the flat information recording/processing device;

comparing the sensed fingerprint of the individual to the registered fingerprint data using a fingerprint matching unit of the flat information recording/processing device; and

outputting a result of the comparison to an exposed terminal of the recording/processing device, the exposed terminal configured to <u>electrically</u> connect to an external terminal.

Respectfully Submitted,

Robert E. Slenker

Registration No. 45,112

ARMSTRONG TEASDALE LLP

One Metropolitan Square, Suite 2600

St. Louis, Missouri 63102-2740

(314) 621-5070